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STATE OF VERMONT
PUBLIC SERVICE BOARD

| | | |
|--|---|-----------------|
| Investigation re: Establishment of a Standard- |) | |
| Offer Program for Qualifying Sustainably |) | |
| Priced Energy Enterprise Development |) | Docket No. 7533 |
| ("SPEED") Resources |) | |

PREFILED TESTIMONY OF
JOSHUA P. CASTONGUAY
ON BEHALF OF
GREEN MOUNTAIN POWER CORPORATION

November 3, 2009

The purpose of Mr. Castonguay’s prefiled testimony is to propose a long-term standard contract price for solar PV generation projects to take effect on January 15, 2010.

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Investigation re: Establishment of a Standard-)
Offer Program for Qualifying Sustainably)
Priced Energy Enterprise Development) Docket No. 7533
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**PREFILED TESTIMONY OF JOSHUA P. CASTONGUAY
ON BEHALF OF GREEN MOUNTAIN POWER CORPORATION**

November 3, 2009

Q1 Please state your name, occupation and business address.

A1 My name is Josh Castonguay. I am Field Operations Lead at Green Mountain Power Corporation. My business address is 163 Acorn Lane, Colchester, Vermont, 05446.

Q2 What is the purpose of your testimony?

A2 The purpose of my testimony is to:

- (1) Propose that the Public Service Board respond to the current solar market cost trend by setting the Standard Offer rate for qualifying solar projects at a level that encourages the development of the most cost effective solar projects available in Vermont, enabling the remainder of the SPEED goal to be met at the least possible cost to Vermont ratepayers; and
- (2) Respectfully submit that the post-January 15, 2010 Standard Offer rate for qualifying solar projects should be set no higher than 26 cents per kilowatt hour.

1

2 **Q3 Have you conducted any analysis of solar market cost data to support the proposals**
3 **contained in this testimony?**

4 A3 Yes. Green Mountain Power (“GMP”) retained Sustainable Energy Advantage, LLC
5 (“SEA”) to provide analysis and testimony with respect to recent trends in the installed
6 cost of U.S. solar projects. GMP refers to the analysis in the testimony of Jason S.
7 Gifford of SEA in its recommendations regarding the establishment of a standard offer
8 price for solar to take effect on January 15, 2010.

9

10 **Q4 Is the objective of your testimony to limit SPEED participation to MW-scale projects?**

11 A4 No. The objective of our testimony is to set the Standard Offer contract rate based on
12 the most efficient projects. Projects of any size which are economically viable at this
13 rate should be encouraged to apply and participate in the SPEED program if contracts
14 are available.

15

16 **Q5 Based on these data and findings, do you have a recommendation for updating the**
17 **solar Standard Offer rate, to take effect on January 15, 2010?**

18 A5 Yes. Green Mountain Power respectfully requests that the Public Service Board
19 acknowledge the reductions in the installed cost of solar PV in 2009 compared to the
20 2006 through 2008 period. While it is plausible that this trend was not demonstrable
21 when the Board first opened its investigation into the implementation of Standard Offer

1 prices in Docket 7523, the data now available clearly demonstrate a measurable and
2 defensible cost reduction. The installed cost of solar PV decreased significantly in the six
3 months leading up to this testimony. GMP proposes that the Board establish the post-
4 January 15, 2010 solar Standard Offer rate at a level that encourages the development
5 of the most cost effective solar projects available in Vermont, of which there is ample
6 supply in the SPEED queue. GMP proposes a rate no higher than 26 cents/kWh for all
7 solar projects otherwise qualifying for Standard Offer contracts.

8 It is possible, given the volume of projects – both solar and otherwise – which submitted
9 Standard Offer applications on October 19 that this new rate would not be used at all or
10 would be accessed only by a few projects squeezing in under the 50 MW program cap if
11 the 25% single-technology cap is lifted before the program cap is reached. However, a
12 detailed review of renewable energy programs in other states underscores the
13 inevitability of project attrition. While many of the policy design elements of Vermont's
14 Standard Offer program (and other cost-based feed-in tariffs) increase the likelihood of
15 project success, GMP expects that a portion of the projects which were selected via the
16 lottery will nonetheless fail to achieve commercial operation and will exit the queue.

17 This will almost certainly not occur until after January 15, 2010. When a solar project
18 drops out of the queue, any replacement project (presumably from the solar waiting list
19 established during the lottery process) will have to accept a Standard Offer contract at
20 the then-current solar PV Standard Offer rate. In this example, the SPEED Administrator
21 would offer a standard offer no higher than 26 cent/kWh to each successive solar

project on the waiting list until enough projects accepted to compensate for the project(s) which failed to meet the Board's required milestones.

Q6 Please summarize the solar modeling results from the modeling assumptions determined by SEA.

A6 This standard offer rate proposal was derived using the same model relied upon by the majority of parties during the Docket 7523 and associated working group processes. SEA determined the appropriate assumptions to focus on the most efficient projects being constructed. The results of the modeling are as follows:

| Summary of Solar Modeling Results | | | |
|-----------------------------------|------------|-------------------------------------|------|
| Levelized Cost | \$0.26/kWh | Average Debt Service Coverage Ratio | 1.27 |
| Internal Rate of Return | 12.13% | | |

In conclusion, GMP respectfully requests that the Board adopt a post-1/15/2010 Standard Offer solar rate that enables the remainder of the SPEED goal – including replacements of post 1/15/2010 attrition – to be met by the most cost-effective solar projects and at the least possible total cost to Vermont ratepayers. To this end, GMP respectfully submits that the post-January 15, 2010 Standard Offer rate for qualifying solar projects should be set no higher than 26 cents/kilowatt hour.

1 Q7 **Does this conclude your pre-filed testimony?**

2 A7 Yes.